

Special Issue

Biopolymer-Based Materials for Edible Food Packaging

Message from the Guest Editor

Food packaging is an essential tool to protect food from the environment, where it is exposed to different temperature, humidity, gas and vapor permeation, and light conditions. Packaging is also responsible for maintaining food quality and safety during its shelf life until being consumed. At the same time, the environmental situation is difficult due to the large amounts of non-biodegradable plastic around the world. Because of this, different biopolymers like pectin, starch, chitosan, carrageenan, polylactic acid, cellulose derivatives and others have been investigated for their potential application as edible food wrapping materials. Crosslinking or reinforcement agents such as nanofillers can improve their properties, making them suitable for active and intelligent packaging. This Special Issue aims to cover various challenges and possible solutions associated with food packaging materials based on biopolymers. It covers a wide range of biopolymers used in food packaging and the challenges of using them in their pure form. Different applications, such as edible coatings and sensors, are also welcome.

Guest Editor

Dr. Silvia Maria Martelli

Faculdade de Engenharia, Universidade Federal da Grande Dourados—UFGD, Rodovia Dourados-Itahum, Km 12, Dourados 79804-970, MS, Brazil

Deadline for manuscript submissions

31 July 2026



Polymers

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



mdpi.com/si/225947

Polymers
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
polymers@mdpi.com

[mdpi.com/journal/
polymers](https://mdpi.com/journal/polymers)





Polymers

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.7
Indexed in PubMed



[mdpi.com/journal/
polymers](https://mdpi.com/journal/polymers)



About the Journal

Message from the Editor-in-Chief

Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker

Fraunhofer-Institut für Angewandte Polymerforschung, Lehrstuhl für Polymermaterialien und Polymertechnologie, Universität Potsdam, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubMed, PMC, FSTA, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q1 (Polymer Science) / CiteScore - Q1 (General Chemistry)